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Dan Richards

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03/25/2009

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EXAMINER

GOLIGHTLY, ERIC WAYNE

ART UNIT

PAPER NUMBER

1792

NOTIFICATION DATE

DELIVERY MODE

03/25/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
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EXAMINER

Eric Golightly

ART UNIT	PAPER
1792	20090317-A

DATE MAILED:

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner for Patents

In response to applicant's communication dated 1/30/2009 regarding the last Office action, the following corrective action is taken. The period for reply of 3 MONTHS set in said Office Action is restarted to begin with the mailing date of this letter.

A corrected copy of the last Office Action is enclosed.

/Michael Kornakov/
Supervisory Patent Examiner, Art Unit 1792

/Eric Golightly/
Examiner, Art Unit 1792

DETAILED ACTION

Claim Objections

1. Claim 68 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claim has not been further treated on the merits.
2. Claim 62 objected to because of the following informalities: the phrase "a liquid supplying device" in claim 62 should apparently be replace with "the liquid supplying device", since the liquid supplying devise is already recited in claim 60, from which claims 62 depends.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claim 61 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention.

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The term "high" in claim 61 is a relative term which renders the claim indefinite. The term "high" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 43-47, 50-52 and 70 are rejected under 35 U.S.C. 102(a) and (e) as being anticipated by US 4,828,651 to Lumbroso, et al. (hereinafter "Lumbroso").

Regarding claims 43-47 and 70, Lumbroso teaches a device for cleaning a coking reactor (abstract) and discloses: a mass (Fig. 1, ref. 12 and col. 3, line 58), or elongated rigid conduit, that is fully capable of being inserted into a vessel and extending therein; a flexible tube (Fig. 1, ref. 10 and col. 3, lines 50 and 51), or elongated flexible conduit, that is fully capable of being inserted through the rigid conduit into a vessel for conducting pressurized liquid and extending beyond an innermost end of the rigid conduit as claimed; and superimposed layers with watertight sheathings (col. 2, lines 64-66), that read on the sealing device between the conduits.

Regarding claim 46, the Lumbroso rigid conduit comprises a rigid shroud (Fig. 1, ref. 12) having a shape complimentary to that of the flexible conduit and which is fully capable of being extended into the vessel.

Regarding claim 47, the Lumbroso rigid conduit is fully capable of being inserted through an opening defined in a wall of the vessel.

Regarding claims 50 and 51, Lumbroso discloses the flexible conduit is capable of conducting the liquid at a pressure of at least 10,000 psi (col. 3, lines 9 and 10).

Regarding claim 52, the Lumbroso flexible conduit is sufficiently long to be inserted through the rigid conduit into a coker vessel (see Fig. 1, ref. 11 and col. 3, lines 54 and 55). It is noted that the coker vessel is not claimed as part of the claimed apparatus.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicants are advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claim 53-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lumbroso (US 4,828,651).

Regarding claim 53, Lumbroso discloses a nozzle (Fig. 2B, ref. 22 and col. 3, lines 54-57) at a tip of the flexible conduit, but does not explicitly teach that the nozzle is part of the flexible conduit. However, making the nozzle a part of the flexible conduit would be merely a matter of obvious engineering choice. MPEP 2144.04(B).

Regarding claim 54-57, it is again noted that the neither the coker vessel, nor the components thereof, are claimed as part of the claimed apparatus. Lumbroso discloses a flexible conduit (Fig. 1, ref. 10 and col. 3, lines 50 and 51), which is sufficiently long for the nozzle to be inserted into the snout of a coker vessel (Fig. 1, ref. 2) and discloses that is at least long enough to be wound on a drum (Fig. 1, ref. 5) having a radius of 5 meters (claim 4), but does not explicitly teach the flexible conduit is sufficiently long to be inserted through the snout into a gas tube of the coker. However, the skilled artisan

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would have found it obvious to include a flexible conduit of sufficient length in order to locate the nozzle as needed for enhancing the cleaning process, including sufficiently long to be inserted through the snout into a gas tube of the coker, through the gas tube into a cyclone region of the coker, and through the cyclone region into a vicinity of a dip leg of the coker. MPEP 2144.04(IV)(A).

11. Claims 48, 49, 58-62, 69, 71 and 72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lumbroso (US 4,828,651) in view of US 4,799,554 to Clapp, et al. (hereinafter "Clapp").

Regarding claims 48, 49, 69, 71 and 72 generally, initially it is noted that the claims only require that the rigid conduit is insertable through the valve assembly. The valve assembly itself is not claimed as part of the claimed apparatus.

Regarding claim 48, Lumbroso does not explicitly teach that the rigid conduit is insertable through a valve assembly. Clapp teaches an apparatus for pressurized cleaning (abstract) and discloses an elongated rigid valve assembly (Fig. 1, ref. 31 and col. 4, lines 7 and 8) wherein tubing (Fig. 1, ref. 23 and col. 4, line 1), or rigid conduit, is inserted. It would have been obvious to one of ordinary skill in the art at the time of the invention to include a valve-insertable rigid conduit as per the Clapp teaching in the apparatus as per the Lumbroso teaching in order to control access to and fluid communication with the conduits. It is noted that the Lumbroso/Clapp rigid conduit is insertable through a valve assembly extending through a wall of a vessel.

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Regarding claims 49 and 69, Lumbroso and Clapp disclose the second sealing device (Lumbroso at col. 2, lines 64-66), but do not explicitly teach a sealing device located between the rigid conduit and the valve assembly. However, the skilled artisan would have found it obvious to include a sealing device between the rigid conduit and the valve assembly in order to inhibit the escape of pressurized fluid from the valve assembly. See MPEP 2144.04(IV)(A) and (B).

Regarding claim 58, Lumbroso does not explicitly teach that the flexible conduit comprises coiled tubing. Clapp teaches an apparatus for pressurized cleaning (abstract) and discloses a flexible conduit comprising coiled tubing (Fig. 1, ref. 26 and col. 3, line 68). It would have been obvious to one of ordinary skill in the art at the time of the invention to include coiled tubing as per the apparatus of the Clapp teaching as part of the flexible conduit in the teaching as per the Lumbroso teaching due to the operational ease and safety of coiled tubing and its ability to deliver liquids under pressure.

Regarding claim 59, Lumbroso and Clapp disclose a reel (Lumbroso at Fig. 1, ref. 5 and col. 3, lines 41 and 42).

Regarding claims 60 and 61, Lumbroso and Clapp disclose the reel comprises a liquid junction comprising a high pressure fluid swivel connector (Lumbroso at col. 3, lines 42-46) connectable to an input end of the coiled tubing and connectable to a liquid supplying device (Fig. 1, ref. 6 and col. 3, lines 44 and 45) which is fully capable of being used to conduct pressurized liquid from the liquid supplying device into the coiled tubing.

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Regarding claim 62, Lumbroso and Clapp disclose a liquid supplying device comprising a pump (col. 2, lines 29 and 30), but do not explicitly teach that the pump is a mechanical pump and a hose. However, mechanical pumps and hoses are well known in the art and are not disclosed as critical to the presently claimed apparatus. The skilled artisan would have found it obvious to include a mechanical pump in the apparatus of the Lumbroso/Clapp teachings since mechanical pumps have been around for years and are low cost, and to include a hose connectable to the pump and liquid junction in order to enhance to freedom of movement of the pump.

Regarding claims 71 and 72, Lumbroso teaches a device for cleaning a coking reactor (abstract) and discloses: a mass (Fig. 1, ref. 12 and col. 3, line 58), or elongated rigid conduit, that is fully capable of being inserted into a vessel and extending therein; a flexible tube (Fig. 1, ref. 10 and col. 3, lines 50 and 51), or elongated flexible conduit, that is fully capable of being inserted through the rigid conduit into a vessel for conducting pressurized liquid and extending beyond an innermost end of the rigid conduit as claimed; and superimposed layers with watertight sheathings (col. 2, lines 64-66), that read on the sealing device between the conduits.

Lumbroso does not explicitly teach that the rigid conduit is insertable through a valve assembly. Clapp teaches an apparatus for pressurized cleaning (abstract) and discloses an elongated rigid valve assembly (Fig. 1, ref. 31 and col. 4, lines 7 and 8) wherein tubing (Fig. 1, ref. 23 and col. 4, line 1), or rigid conduit, is inserted. It would have been obvious to one of ordinary skill in the art at the time of the invention to include a valve-insertable rigid conduit as per the Clapp teaching in the apparatus as

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per the Lumbroso teaching in order to control access to and fluid communication with the conduits. It is noted that the Lumbroso/Clapp rigid conduit is insertable through a valve assembly extending through a wall of a vessel.

Lumbroso/Clapp discloses a sealing device but do not explicitly teach a sealing device located between the rigid conduit and the valve assembly. However, the skilled artisan would have found it obvious to include a sealing device between the rigid conduit and the valve assembly in order to inhibit the escape of pressurized fluid from the valve assembly. See MPEP 2144.04(IV)(A) and (B).

12. Claims 64-67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lumbroso (US 4,828,651) in view of US 3,285,485 to Slator (hereinafter "Slator").

Regarding claim 64, Lumbroso does not explicitly teach the apparatus further comprises an insertion device. Slator teaches an apparatus for handling tubing (col. 1, line 10) and discloses an insertion device (Fig. 1, ref. A and col. 2, lines 23 and 24), which is fully capable of inserting the flexible conduit through a rigid conduit into the vessel. It would have been obvious to one of ordinary skill in the art at the time of the invention to include the insertion device as per the Slator teaching in the apparatus as per the Lumbroso teaching in order to secure the flexible conduit when pressurized.

Regarding claim 65, Lumbroso and Slator disclose the insertion device comprising an injector assembly (Slator at Fig. 1, ref. G and G-1 and col. 2, lines 27 and 28), which are fully capable of gripping the flexible conduit and pushing it through a rigid conduit.

Regarding claim 66, Lumbroso and Slator disclose the injector assembly comprises first and second opposing traction belts (Slator at Fig. 1, ref. G and G-1 and col. 2, lines 27 and 28), which are fully capable of snugly gripping the flexible conduit therebetween.

Regarding claim 67, Lumbroso and Slator disclose the injector assembly further comprising drive mechanisms (Slator at Fig. 3, ref. 20 and 21 and col. 3, lines 33-35), which are fully capable of being used to rotate the traction belts in opposite respective directions to move the fluid conduit through the injector assembly.

13. Claim 63 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lumbroso (US 4,828,651) in view of Clapp (US 4,799,554) and in further view of US 6,206,317 to Harvestine (hereinafter "Harvestine").

Lumbroso and Clapp do not explicitly teach the reel comprises at least one retaining member. Harvestine teaches an apparatus for coiling a hose (abstract) and discloses a reel comprising a retaining member (Fig. 1, ref. 20 and 30, respectively, and col. 3, lines 14-17). It would have been obvious to one of ordinary skill in the art at the time of the invention to include a retaining member as per the apparatus of the Harvestine teaching with the reel of the apparatus as per the Lumbroso/Clapp teachings in order to enhance operator safety. The retaining member of the apparatus of the Lumbroso/Clapp/Harvestine teachings is fully capable of retaining the tubing to the reel.

Response to Amendment

14. The claim objections of the previous Office action are withdrawn in view of the amendments. However, a new claim objection is made, as discussed in the "Claim Objections" section.

Response to Arguments

15. Applicants' arguments filed 10/14/2008, with respect to the use of the term "rigid" (remarks at page 8, last paragraph) have been fully considered and are persuasive. That is, it can at least be inferred that the "rigid" conduit is stiffer than the flexible conduit. The rejections of claims 43, 44 and 70-72 under 35 U.S.C. § 112, second paragraph, have been withdrawn.

Applicants' arguments with respect to the rejections under 35 U.S.C. § 102 and 35 U.S.C. § 103 have been fully considered but they are not persuasive.

Regarding applicants' argument that the applied art does not teach the flexible conduit insertable through the rigid conduit into the vessel and sufficiently long to extend beyond an innermost end of the rigid conduit (remarks at page 9, first paragraph), Lumbroso (US 4,828,651) discloses that the flexible conduit (Fig. 1, ref. 10) carries a turbine (Fig. 1, ref. 11 and col. 3, lines 54 and 55), and the turbine is shown in Fig. 1 to be at a lower end of the rigid conduit (Fig. 1, ref. 12). Thus, the flexible conduit is at least sufficiently long to extend beyond the innermost upper end of the rigid conduit, in order to carry the turbine.

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In response to applicants' argument that the applied art does not teach the same use as intended by applicants (remarks at page 10, second full paragraph), a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

In response to applicants' argument that the motivation to combine is lacking because, it is alleged, the intended function of applicants' claims would be destroyed (remarks at page 11, first paragraph), the reason for combining need not be in furtherance of applicants' reason. The fact that applicants have recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

In response to applicants' argument that the references fail to show certain features of applicants' invention, it is noted that the features upon which applicants rely (i.e., the rigid conduit as supporting the flexible conduit to prevent fluid from flowing through a gap, see Remarks at page 11, first paragraph) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicants' disclosure. US 5,129,455 to Boisture discloses a multi-lance cleaning apparatus. US 6,199,566 to Gazewood discloses an apparatus for jetting a fluid. US 3,520,724 to Massa discloses a tank processing system.

17. **THIS ACTION IS MADE FINAL.** Applicants are reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Golightly whose telephone number is (571) 270-3715. The examiner can normally be reached on Monday to Thursday, 7:30 AM to 5:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Kornakov can be reached on (571) 272-1303. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

EWG

/Michael Kornakov/

Supervisory Patent Examiner, Art Unit 1792